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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,924	08/29/2002	Anatoly Yakovlevich Stolyarevsky	22941-1	2347

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EXAMINER
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LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/064,924

**Applicant(s)**STOLYAREVSKY, ANATOLY  
YAKOVLEVICH**Examiner**

Frank M. Lawrence

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2003 and 18 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,8,11 and 14 is/are rejected.
- 7) ☒ Claim(s) 2,4,6,7,9,10,12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: Applicant is requested to amend the specification to include a paragraph claiming priority to the international application. Note that no new application data sheet (APDS) could be found with the latest response. Also, each reference to "Fig. 3" in the specification should be changed to refer to the appropriate one of "Fig. 3a" or "Fig. 3b". Note that claim 14 has been presented twice in the latest amendment. Please delete one instance in the next communication.

Appropriate correction is required.

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet *within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.* The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Weltmer, Jr. et al. (5,005,362).

5. Weltmer, Jr. et al. '362 teach a cryogenic storage container, comprising a cylindrical gas impermeable body (30) with several valved channels and split into two portions (24,28), particles of a sorbent material (42) within the body, a sorbent-free portion (34) inside the body, and a solidified gas within the sorbent-free portion (see figure, col. 2, lines 63-68, col. 3, line 65 to col. 4, line 19). Neon gas that is cryogenically stored in a chamber (11) is sorbed by the sorbent material (see figure, col. 2, lines 63-68, col. 3, line 65 to col. 4, line 32). The method of filling the housing with the sorbent and gases is an inherent feature of the finished apparatus.

6. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Alexander (3,964,649).

7. Alexander '649 teaches a pressurized dispensing container comprising a cylindrical housing formed from two parts (10, 12) with a valve member (11) disposed adjacent to the joining of the housing parts, and a sealed sachet (17) disposed within the housing and containing a solid-phase adsorbent material for storing a liquefied gas propellant, wherein the sachet is separated from the fluid to be dispensed (see col. 4, lines 7-44).

8. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Hultquist et al. (6,132,492).

9. Hultquist et al. '492 teach a sorbent-based gas storage and dispensing container, comprising a cylindrical housing (102) filled with a solid phase sorbent (108) for storing a gas to be dispensed, an upper valve for selectively dispensing the gas, and a capsule (110) that is

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separated from the storage sorbent by a capsule wall (136) and is filled with a second solid-phase sorbent material that adsorbs impurities within the housing (see col. 14, line 58 to col. 15, line 60).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Hultquist et al. '492, Alexander '649, or Weltmer, Jr. et al. '362 in view of Zheng et al. '526.

12. Either one of Hultquist et al. '492, Alexander '649, or Weltmer, Jr. et al. '362 disclose all of the limitations of the claim except that the release channel is provided with a molecular sieve permeable only by the gas. Zheng et al. ('526) disclose a pressurized dispensing vessel having a release channel that is provided with a molecular sieve (111) for adsorbing impurities while passing the dispensed fluid. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the release channel of either one of the primary references by using a molecular sieve in order to provide an integral means for dispensing a high-purity gas without the need for external purifiers that require servicing (col. 1, lines 37-68; col. 3, lines 43-59)

***Allowable Subject Matter***

13. Claims 2, 4, 6, 7, 9, 10, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

14. Applicant's arguments filed September 9, 2003 have been fully considered but they are not persuasive. Note that the examiner has waived the requirement that the substitute specification be accompanied by a marked-up (underlined and bracketed) copy. The examiner has also waived the requirement that the claims be submitted in underlined and bracketed format in the interest of expediting prosecution, however applicant is urged to follow this requirement in all future communications. Also, if any change is made to a claim, the indicator “(amended)” must be used rather than “(original).” It is suggested that if extensive changes must be made to the claims as in the instant situation, all pending claims should be canceled and then resubmitted as new claims numbered following the previous claims (starting with 11).

15. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the presence of a solidified gas placed in a sorbent-free space inside the gas (im)permeable body) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In claim 1, only a sorbent-free portion being of sufficient volume to receive the solidified gas is claimed, however no solidified gas is recited as

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a physical limitation to the device. A new rejection over Weltmer, Jr. et al. is presented to anticipate the solidified gas limitation if it were positively recited.

16. Applicant also argues that the sachet (17) in Alexander does not anticipate the impermeable body of claim 1, however it is submitted that the external casing (10) anticipates this feature.

17. Applicant's arguments with respect to claim 11 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the PTO-892 form disclose storage systems having a solidified gas propellant.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161. The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0987.

Frank M. Lawrence  
Primary Examiner  
Art Unit 1724

*Frank Lawrence*

12-17-03

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